

CLAIMS

What is claimed is:

1. A manager server comprising:

a network adapter to connect the manager server to a network, the network including a plurality of storage servers, the plurality of storage servers implementing a plurality of data replication relationships;

a storage facility to contain a data structure configured to represent the plurality of data replication relationships; and

a processor to automatically input the plurality of data replication relationships into the data structure, to automatically generate a plurality of replication policies, and to apply at least one of the plurality of replication policies to each data replication relationship.

2. The manager server of claim 1 wherein, the processor automatically inputs the plurality of data replication relationships by querying the plurality of storage servers.

3. The manager server of claim 1, wherein the processor automatically generates the plurality of replication policies by:

selecting one of the plurality of data replication relationships;

observing one or more attributes of the selected data replication relationship;

searching for a replication policy having the observed attributes;

if a replication policy having the observed attributes is found, applying the found replication policy to the selected data replication relationship; and

if no replication policy having the observed attributes is found, then creating a replication policy having the observed attributes and applying the created replication policy to the selected data replication relationship.

4. The manager server of claim 1, wherein the data structure comprises a database.
5. The manager server of claim 1, wherein the plurality of storage servers comprise file servers.
6. The manager server of claim 1, wherein each data replication relationship comprises a data source and a data destination, and at least one of the automatically generated replication policies comprises an update schedule that specifies how often the data source should be replicated at the data destination.
7. The manager server of claim 6, wherein at least one of the automatically generated replication policies comprises a throttle that specifies an amount of bandwidth that a scheduled data replication can consume.
8. A graphical user interface (“GUI”) comprising:
 - a representation of a data structure containing a plurality of data replication relationships being implemented by a plurality of storage servers, the representation of the data structure being configured to enable a user to apply at least one of a plurality of replication policies to each data replication relationship;
 - and

a tool to allow the user to select one of the plurality of replication policies and to automatically clone the selected replication policy, wherein the cloned replication policy has the same attributes as the selected replication policy, but a different name.

9. The GUI of claim 8, further comprising a policy editor to enable the user to rename the cloned replication policy.

10. The GUI of claim 9, wherein the policy editor further enables the user to change any attributes of the cloned replication policy.

11. The GUI of claim 9, wherein the policy editor further enables the user to create additional replication policies.

12. A method comprising:

displaying a representation of a data structure to a user, the data structure containing a plurality of data replication relationships being implemented by a plurality of storage servers;

allowing the user to apply at least one of a plurality of replication policies to each data replication relationship displayed in the data structure;

allowing the user to select at least one of the plurality of replication policies;

providing a policy cloning tool to the user operable to clone the selected replication policy, wherein the cloned replication policy has the same attributes as the selected replication policy, but a different name.

13. The method of claim 12, further comprising allowing the user to rename the cloned replication policy.

14. The method of claim 13, further comprising allowing the user to change any attributes of the cloned replication policy.

15. The method of claim 13, further comprising allowing the user to create additional replication policies.

16. A method performed comprising:

retrieving a data replication relationship being implemented between two or more storage servers;

storing the retrieved data replication relationship in a central data structure;

determining one or more attributes of the data replication relationship;

searching for a replication policy having the determined attributes; and

if the search is successful, then applying the replication policy to the retrieved data replication relationship.

17. The method of claim 16, further comprising, if the search is not successful, then creating a new replication policy with the determined attributes and applying the new replication policy to the data replication relationship.
18. The method claim 16, wherein the data structure comprises a database.
19. The method of claim 16, wherein the plurality of storage servers comprise file servers.
20. The method of claim 16, wherein each data replication relationship comprises a data source and a data destination, and the one or more attributes comprise an update schedule that specifies how often the data source should be replicated at the data destination.
21. The method of claim 20, wherein the one or more attributes further comprises a throttle that specifies an amount of bandwidth that a scheduled data replication can consume.